



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0862; Directorate Identifier 2011-NM-198-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) that applies to certain The Boeing Company Model 747-400 and 747-400F series airplanes. The existing AD currently requires installing drains and drain tubes to eliminate water accumulation in the dripshield above the M826 cardfile in the main equipment center. Since we issued that AD, we received reports of continued water damage to diode fire card 285U0072-1 in the M826 automatic fire overheat logic test system cardfile following a false FWD CARGO FIRE message, with no change in frequency, which resulted in an air turn back. This proposed AD would instead require installing drain tubes, relocating wire bundle routing, installing a new drip shield and drip shield deflectors, and replacing insulation blankets. For certain airplanes, this proposed AD would also concurrently require sealing the drain slot, installing spuds, and installing drain tubes. We are proposing this AD to prevent water from exiting over the edge of the existing drip shield and contaminating electrical components in the M826 cardfile, which could result in an electrical short and potential loss of several functions essential for safe flight.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Francis Smith, Aerospace Engineer, Cabin Safety & Environmental Control Systems, ANM-150S, FAA, Seattle Aircraft

Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6457; fax: 425-917-6590; email: [francis.smith@faa.gov](mailto:francis.smith@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0862; Directorate Identifier 2011-NM-198-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

On April 7, 2008, we issued AD 2008-08-25, Amendment 39-15479 (73 FR 21240, April 21, 2008), for certain Boeing Model 747-400F and -400 series airplanes. That AD requires installing drains and drain tubes to eliminate water accumulation in the dripshield above the M826 cardfile in the main equipment center. That AD resulted from a report that water from the dripshield entered the card file and damaged a circuit card, causing the AFT CARGO FIRE MSG message to be illuminated, and resulting in an air turn back. We issued that AD to prevent water from entering the card file and damaging a circuit card. Failure of one or more of the 15 fuel system circuit cards in the card file could cause loss of fuel management, which could cause unavailability of fuel. Failure of

one or more of the 35 fire detection circuit cards could cause a false message of a fire, or no message of a fire when there is a fire.

#### **Actions Since Existing AD Was Issued**

Since we issued AD 2008-08-25, Amendment 39-15479 (73 FR 21240, April 21, 2008), we received reports of continued water damage to diode fire card 285U0072-1 in the M826 automatic fire overheat logic test system cardfile following a false FWD CARGO FIRE message, with no change in frequency, which resulted in an air turn back. These events occurred on airplanes on which the actions required by AD 2008-08-25 had already been accomplished.

#### **Relevant Service Information**

We reviewed Boeing Alert Service Bulletin 747-25A3580, Revision 1, dated July 14, 2011 (for Model 747-400F series airplanes); and Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011 (for Model 747-400 series airplanes). The service information describes procedures for installing drain tubes, relocating wire bundle routing, installing a new drip shield and drip shield deflectors, and replacing insulation blankets.

#### **Concurrent Service Information**

Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011, also specifies the concurrent accomplishment of Boeing Alert Service Bulletin 747-25A3526, Revision 1, dated February 20, 2009 (for Model 747-400 series airplanes). This service bulletin describes procedures for sealing the drain slot, installing spuds, and installing left- and right-side drain tubes.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

## Proposed AD Requirements

This proposed AD would retain none of the requirements of AD 2008-08-25, Amendment 39-15479 (73 FR 21240, April 21, 2008). This proposed AD would require accomplishing the actions specified in the following service bulletins:

- Boeing Alert Service Bulletin 747-25A3580, Revision 1, dated July 14, 2011 (for Model 747-400F series airplanes);
- Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011 (for Model 747-400 series airplanes); and
- Boeing Alert Service Bulletin 747-25A3526, Revision 1, dated February 20, 2009 (for Model 747-400 series airplanes).

## Costs of Compliance

We estimate that this proposed AD affects 38 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation, relocation, and replacement	Up to 23 work-hours X \$85 per hour = \$1,955	\$Up to 8,887	Up to \$10,842	Up to \$411,996
Concurrent installation	8 work-hours X \$85 per hour = 680	\$1,801	\$2,481	\$94,278

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2008-08-25, Amendment 39-15479 (73 FR 21240, April 21, 2008), and adding the following new AD:

**The Boeing Company:** Docket No. FAA-2012-0862; Directorate Identifier 2011-NM-198-AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD supersedes AD 2008-08-25, Amendment 39-15479 (73 FR 21240, April 21, 2008).

#### **(c) Applicability**

This AD applies to The Boeing Company airplanes, certificated in any category, as specified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 747-400F series airplanes, as identified in Boeing Alert Service Bulletin 747-25A3580, Revision 1, dated July 14, 2011.

(2) Model 747-400 series airplanes, as identified in Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

**(e) Unsafe Condition**

This AD was prompted by reports of continued water damage to diode fire card 285U0072-1 in the M826 automatic fire overheat logic test system cardfile following a false FWD CARGO FIRE message, with no change in frequency, which resulted in an air turn back. We are issuing this AD to prevent water from exiting over the edge of the existing drip shield and contaminating electrical components in the M826 cardfile, which could result in an electrical short and potential loss of several functions essential for safe flight.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Installation and Replacement**

Within 24 months after the effective date of this AD, install aft and forward drain tubes, relocate wire bundle routing, install a new drip shield and drip shield deflectors, and replace insulation blankets, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3580, Revision 1, dated July 14, 2011 (for Model 747-400F series airplanes); or Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011 (for Model 747-400 series airplanes).

**(h) Concurrent Actions**

For Group 1 airplanes as identified in Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011: Prior to or concurrently with the actions required by paragraph (g) of this AD, seal the drain slot, install spuds, and install left- and right-side drain tubes, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3526, Revision 1, dated February 20, 2009 (for Model



747-400 series airplanes), except as specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) Steps 1 through 5 of Figure 2 of Boeing Alert Service Bulletin 747-25A3526, Revision 1, dated February 20, 2009, are not required if work is being accomplished concurrently with the actions specified in Boeing Alert Service Bulletin 747-25A3581, Revision 1, dated June 30, 2011 (for Model 747-400 series airplanes).

(2) The portion of “More Data” in step 8 of Figure 3 of Boeing Alert Service Bulletin 747-25A3526, Revision 1, dated February 20, 2009, which says “Attach drain tube and strap above bead on the spud,” is not required.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to:

[9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

(1) For more information about this AD, contact Francis Smith, Aerospace Engineer, Cabin Safety & Environmental Control Systems, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6457; fax: 425-917-6590; email: [francis.smith@faa.gov](mailto:francis.smith@faa.gov).

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 24, 2012.

Ali Bahrami,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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